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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,643	07/31/2001	Diane D. IIsley	10991398-1	5729

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Agilent Technologies, Inc.
Legal Department, DL429
Intellectual Property Administration
P.O. Box 7599
Loveland, CO 80537-0599

EXAMINER

LIU, SUE XU

ART UNIT	PAPER NUMBER
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1639

DATE MAILED: 07/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/919,643		ILSLEY ET AL.	
	Examiner		Art Unit	
	Sue Liu		1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 29-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Status

Claims 1-34 are currently pending;

Claims 1, 12, 17, 21, and 22 have been amended filed on 4/24/06;

Claims 29-34 have been withdrawn;

Claims 1-28 are being examined in this application.

Claim Amendments

1. The amendment and response filed on 4/24/2006 have been fully considered and entered in the application.

Election/Restrictions

2. This application contains claims 29-34 drawn to an invention nonelected with traverse in the reply filed on 12/22/2005. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections Withdrawn

3. In light of applicants' amendments to the claims, the following rejection has been withdrawn:

Claims 1-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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4. Upon further consideration and the persuasiveness of applicant's argument, the following claim rejections are withdrawn:

A. Claims 1, 2, 9 and 11 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of its related U.S. Patent No. 6,872,359.

B. Claims 1-4 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 and 8-10 of its divisional U.S. Patent No. 6,372,483 B2.

C. Claims 1 and 6 provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 16-18, 21 and 23-24 of copending Application No. 10/932,886.

D. Claims 1, 3, 4, 6, 7, 8 and 11 provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 22-31 of copending Application No. 10/933,122.

Claim Rejections Maintained (102-Deeg et al)

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1-28 are rejected under **35 U.S.C. 102(b)** as being anticipated by Deeg et al (US 5,338,688; 08/16/1994). The previous rejection is maintained for the reasons of record advanced on pages 4-5 of the office action mailed on 1/27/06.

Discussion and Answer to Argument

7. Applicants traversed the above rejection with the following arguments:

Applicants argue in general that a claim is anticipated only if each and every element in the claim is found, either expressly or inherently described, in a single prior art reference. Specifically, applicants argue the claimed phrase “front loading” a fluid into an inkjet head is not taught by Deeg et al.

8. Applicant's arguments have been fully considered but they are not persuasive for the following reasons (in addition to reasons of record):

To address applicant's argument, the meaning of the term “front loading” needs to be clarified. The instant specification recite that “front loading” protocol is to contact the orifice of the inkjet head with fluid under conditions sufficient for fluid to flow through the orifice and into the firing chamber of the head, where fluid flow is due, at least in part, to capillary forces. In addition, back pressure in the form of suction (i.e. negative pressure) may be applied to the firing chamber of the head to assist in the flow of fluid to into the orifice (see [0017] of the specification). Therefore, from above description of the “front loading” procedure, it is reasonable to conclude that the “front loading” is mainly through capillary forces. It is known on the art that capillary force is an inherent property of narrow tube to draw a liquid upwards against the force of gravity (see the attached definition for “Capillary Action” from Wikipedia.org; 2006). Thus the “front loading” capillary action is an inherent property of the inkjet head. Although back pressure in the form of suction may be applied for “front loading”, but is not required for “front loading” as recited in the instant specification.

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As recited in the previous office action, the Deeg reference teaches ink-jet printing head (see Col. 6, lines 58-68 of Deeg), which would inherently have the “front loading” capability when contacting sample fluid. The Deeg reference also teaches thermal inkjet aspirating (or suctioning) reagent solution (e.g. See Example 4, step e)), which would read on applying back pressure in the form of suction. Therefore, Deeg et al teaches the element of “front loading” of the claimed invention.

Claim Rejections Maintained (102-Caren et al-‘653 patent)

Claim Rejections - 35 USC § 102

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10.¹ Claims 1, 2 and 9 are rejected under **35 U.S.C. 102(a)** as being anticipated by Caren et al (US 6,221,653; 04/24/2001). The previous rejection is maintained for the reasons of record advanced on page 5 of the office action mailed on 1/27/06.

Discussion and Answer to Argument

11. Applicants traversed the above rejection with the following arguments:

Similar to the traversal over the Deeg reference, applicants argue the claimed phrase “front loading” a fluid into an inkjet head is not taught by Caren et al.

12. Applicant's arguments have been fully considered but they are not persuasive for the following reasons (in addition to reasons of record):

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As discussed in the previous office action, Caren et al teach a method for depositing a quantity of fluid containing a plurality of binding agents onto a substrate surface (See Claim 19 of the reference). The reference further claims the “loading said fluid into a thermal inkjet head comprising an orifice... by contacting said orifice with said fluid in a manner sufficient for said fluid composition flow through said orifice into said firing chamber” (Claim 6, lines 29+ of the reference), which is the same “front loading” action recited in the instant specification, as discussed above. In addition, Caren et al also claim applying back pressure to said head during the contacting step (See Claim 7 of the reference), which reads on the back pressure or suction action of the instant invention.

Claim Rejections Maintained (102-Caren et al-‘469 patent)

Claim Rejections - 35 USC § 102

13. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

14. Claims 1, 2, 9 and 11 are rejected under **35 U.S.C. 102(e)** as being anticipated by Caren et al (US 6,797,469 B2; 09/28/2004; filed 03/26/2001). The previous rejection is maintained for the reasons of record advanced on pages 5-6 of the office action mailed on 1/27/06.

Discussion and Answer to Argument

15. Applicants traversed the above rejection with the following arguments:

Similar to the traversal over the Deeg reference, applicants argue the claimed phrase “front loading” a fluid into an inkjet head is not taught by Caren et al.

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16. Applicant's arguments have been fully considered but they are not persuasive for the following reasons (in addition to reasons of record):

As discussed in the previous office action, Caren et al teach a method for depositing a quantity of onto an array surface using inkjet (See Claim 19 of the reference). The reference further claims the "loading said fluid into a thermal inkjet head comprising an orifice... by contacting said orifice with said fluid in a manner sufficient for said fluid composition flow through said orifice into said firing chamber" (Claim 4, lines 35+ of the reference), which is the same "front loading" action recited in the instant specification, as discussed above. In addition, Caren et al also claim applying back pressure to said head during the contacting step (See Claim 5 of the reference), which reads on the back pressure or suction action of the instant invention.

Claim Rejections Maintained (ODP-'469)

Double Patenting

17. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

18. Claims 1, 2, 9 and 11 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 19-21 and 23 of U.S. Patent No. 6,797,469 B2 (hereinafter referred to as '469 patent). The previous rejection is maintained for the reasons of record advanced on pages 6-7 of the office action mailed on 1/27/06.

Discussion and Answer to Argument

19. Applicants traversed the above rejection with the following arguments:

Applicants argue the claimed phrase "front loading" a fluid into an inkjet head is not claimed by Caren et al.

20. Applicant's arguments have been fully considered but they are not persuasive for the following reasons (in addition to reasons of record):

As discussed above, the '469 patent does claim "front loading" a fluid into an inkjet head.

Claim Rejections Maintained (ODP-'653)

Double Patenting

21. Claims 1, 2 and 9 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 5-7, 9, 10, 12 and 23 of U.S. Patent No. 6,221,653 B1 (hereinafter referred to as '653 patent). The previous rejection is maintained for the reasons of record advanced on page 7 of the office action mailed on 1/27/06.

Discussion and Answer to Argument

22. Applicants traversed the above rejection with the following arguments:

Applicants argue the claimed phrase “front loading” a fluid into an inkjet head is not claimed by Caren et al.

23. Applicant's arguments have been fully considered but they are not persuasive for the following reasons (in addition to reasons of record):

As discussed above, the ‘653 patent does claim “front loading” a fluid into an inkjet head.

Claim Rejections Maintained (ODP-‘740)

Double Patenting

24. Claims 1, 2, 9 and 11 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 5, 9, 11-13, 15 and 18 of U.S. Patent No. 6,656,740 B1 (hereinafter referred to as ‘740 patent). The previous rejection is maintained for the reasons of record advanced on pages 7-8 of the office action mailed on 1/27/06.

Discussion and Answer to Argument

25. Applicants traversed the above rejection with the following arguments:

Applicants argue the claimed phrase “front loading” a fluid into an inkjet head is not claimed by the ‘740 patents.

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26. Applicant's arguments have been fully considered but they are not persuasive for the following reasons (in addition to reasons of record):

The '740 patent claims method using thermal ejector (reads on inkjet) to generate arrays on a substrate (see Claim 1 of '740). The '740 patent also claims "loading the dispenser by positioning the orifice adjacent and facing a biomonomer or biopolymer containing fluid, and providing a loading pressure to the chamber which is sufficient such that the fluid is drawn into the chamber through the orifice" (emphasis added) (Claim 15 of the '740 patent). This reads on the "front loading" action recited in the instant claims because the fluid is drawn (or suctioned) into the ejector head through the orifice.

Claim Rejections Maintained (ODP-'043)

Double Patenting

27. Claims 1, 2, 6, 7, and 8 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5, 7 and 11-19 of U.S. Patent No. 6,323,043 B1 (hereinafter referred to as '043 patent) and claims 1, 2, 4 and 6 of its related U.S. Patent No. 6,884,580. The previous rejection is maintained for the reasons of record advanced on page 8 of the office action mailed on 1/27/06.

Discussion and Answer to Argument

28. Applicants traversed the above rejection with the following arguments:

Applicants argue the claimed phrase "front loading" a fluid into an inkjet head is not claimed by the '043 patents and its related patent '580.

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29. Applicant's arguments have been fully considered but they are not persuasive for the following reasons (in addition to reasons of record):

The '043 patent claims method using dispenser jet to generate arrays on a substrate (see Claim 1 of '043). The '043 patent also claims "loading the head by positioning the orifice adjacent and facing a biomonomer or biopolymer containing fluid, and providing a loading pressure to the chamber which is sufficient such that the fluid is drawn into the reservoir chamber through the orifice..." (emphasis added) (Claim 1, step (a)). This reads on the "front loading" action recited in the instant claims because the fluid is drawn (or suctioned) into the ejector head through the orifice.

Similarly, the '580 patent claims "loading the head through orifices of the jets with biopolymer or biomonomer fluids" (Claim 1, step (a) of the '580 patent), which would require that the fluid be "front loaded" because the fluid loading is through the orifices of the jets.

Claim Rejections Maintained (ODP-'266)

Double Patenting

30. Claims 1-4 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 8, 12, 14, 15 and 18 of U.S. Patent No. 6,242,266 B1 (hereinafter referred to as '266 patent). The previous rejection is maintained for the reasons of record advanced on pages 8-9 of the office action mailed on 1/27/06.

Discussion and Answer to Argument

31. Applicants traversed the above rejection with the following arguments:

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Applicants argue the claimed phrase “front loading” a fluid into an inkjet head is not claimed by the ‘266.

32. Applicant's arguments have been fully considered but they are not persuasive for the following reasons (in addition to reasons of record):

The ‘266 patent claims method using dispenser jet to generate arrays on a substrate (see Claim 1 of ‘266). The ‘266 patent also claims “positioning the head facing a load station spaced from the substrate, with the orifice adjacent and facing the biomonomer or biopolymer fluid, and providing a loading pressure in the chamber from the venture throat opening while the head is facing he load state, which is sufficiently negative such that the fluid is drawn into the chamber through the orifice” (emphasis added) (Claim 12, lines 40+). This reads on the “front loading” action recited in the instant claims because the fluid is drawn (or suctioned) into the ejector head through the orifice.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue Liu whose telephone number is 571-272-5539. The examiner can normally be reached on M-F 9am-3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Paras can be reached at 571-272-4517. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PETER PARAS, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1639



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Art Unit 1639
7/8/2006